



## **WATER RESOURCES RESEARCH GRANT PROPOSAL**

**Project ID:** DE4302

**Title:** Graduate Fellowship in Water Quality: Mechanisms of Phosphorus Stabilization in the Soil Environment: A Molecular Scale Evaluation

**Focus Categories:** Geomorphological and Geochemical Processes, Nutrients

**Keywords:** nonpoint pollution, soil chemistry, eutrophication, phosphorus

**Start Date:** 03/01/2001

**End Date:** 02/28/2002

**Federal Funds:** \$16,000

**Non-Federal Matching Funds:** \$32,000

**Congressional District:** At-Large

**Principal Investigators:**

Donald L. Sparks

Professor, University of Delaware

James Thomas Sims

Professor, University of Delaware

**Abstract**

Delaware's ground and surface waters have been negatively impacted by nutrients originating from a variety of land uses. In response to growing public concerns about the effects of nutrients on water quality, in 1999 the Delaware General Assembly established by legislative action a Delaware Nutrient Management Commission to develop and implement a State Nutrient Management Program. The Delaware Water Resources Center has established three graduate Ph.D. fellowships to provide research support for the activities of this commission in their efforts to improve water quality in Delaware. These fellowships provide a unique opportunity for graduate students and faculty to become directly involved in multi-disciplinary research that will contribute to the scientific basis for state policy decisions on nutrient management. Fellowships are provided up to a maximum of three years provided satisfactory progress toward project objectives is maintained. Graduate Fellows are required to (i) make a presentation each year describing their progress at a meeting that will be organized by the Delaware Water Resources Center; (ii) prepare an annual report that summarizes their accomplishments and submit it to the Delaware Water Resources Center.

A Graduate Fellowship addressing "Mechanisms of Phosphorus Stabilization in the Soil Environment: A Molecular Scale Evaluation" has been awarded to Stefan Hunger, a Ph.D. student in the University of Delaware College of Agriculture and Natural Resources for 2001-2002, based on a review of proposals submitted by potential graduate fellows and their advisors to the DWRC Advisory Panel.